

Ser. No. 09/800,646 filed 03/06/2001
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AMENDMENTS TO THE CLAIMS

- 1 1. (Previously Presented) A method of modifying a subscription of a subscriber to one
2 or more telecommunications services based on subscriber information and service
3 information that are stored in a directory repository, the method comprising the
4 computer-implemented steps of:
5 determining whether the subscriber is currently logged in, and if the subscriber is not
6 currently logged in, directing the subscriber to log in through an
7 authentication server and generating, by an authorization service, a privilege
8 token associated with the authenticated subscriber that includes subscriber
9 privilege information, wherein said authorization service is separate from said
10 authentication server;
11 receiving a modification request to modify the subscription of the subscriber to the
12 one or more telecommunication services;
13 determining, based on subscriber privilege information in the privilege token
14 associated with the subscriber generated by the authorization service, whether
15 the subscriber has privileges sufficient to carry out the requested modification;
16 if the subscriber is determined to have sufficient privileges, then performing the steps
17 of:
18 receiving, from the directory repository, first subscriber information and first
19 service information representing only such services for which the
20 subscriber is then currently subscribed;
21 modifying the first subscriber information and first service information to
22 reflect the modification;
23 sending the modified information to the directory repository, resulting in
24 creating and storing, in the directory repository, second service
25 information that reflects the modification;
26 generating an engagement request to engage the telecommunications service
27 for the subscriber in order to fulfill the modification request.

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- 1 2. (Previously Presented) A method as recited in Claim 1, wherein the authorization
2 service generates the privilege token by the steps of:
3 receiving a user name associated with the subscriber and mapping the user name to a
4 distinguished name in the directory repository;
5 creating and storing as subscriber privilege information in the privilege token one or
6 more roles occupied by the subscriber based on role information that is stored
7 in the directory repository, said stored role information including mapping
8 information that maps a role to one or more privileges that specify which
9 telecommunications services a subscriber having that role can subscribe to.
- 1 3. (Previously Presented) A method as recited in Claim 1, wherein the step of
2 determining whether the subscriber is currently logged in comprises determining
3 whether a host object that uniquely identifies the subscriber exists, and wherein the
4 privilege token associated with the subscriber is stored with the host object that
5 uniquely identifies the subscriber.
- 1 4. (Previously Presented) A method as recited in Claim 1, wherein the step of generating
2 an engagement request comprises the steps of subscribing the subscriber to the
3 service by creating and storing a relation of a subscriber object that programmatically
4 represents the subscriber to a service object that programmatically represents the
5 service, and creating and storing one or more attribute values in the relation, wherein
6 the attribute values define the subscription.
- 1 5. (Currently Amended) A method of modifying subscriptions of a group of subscribers
2 to one or more telecommunications services based on ~~subscriber information and~~
3 ~~service information that are~~ stored in a directory repository, the method comprising
4 the computer-implemented steps of:
5 receiving from an administrator of the group, a request to modify the subscriptions of
6 the group of subscribers to the one or more telecommunications services;

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7 determining, based on subscriber privilege information in a privilege token that is
8 associated with the administrator and is generated by an authorization service,
9 whether the administrator has privileges sufficient to carry out the requested
10 modification;
11 if the administrator is determined to have sufficient privileges, then performing the
12 steps of:
13 receiving, from the directory repository, current subscriber information and
14 current service information representing then-current services to which
15 the group of subscribers are subscribed;
16 modifying the subscriber information and the service information to reflect the
17 modifications, resulting in creating and storing, in the directory
18 repository, updated service information that reflects the modifications;
19 generating one or more requests to subscribe ~~the~~ a telecommunications service
20 to the group of subscribers to fulfill the request of the administrator.

1 6. (Original) A method as recited in Claim 5, wherein the group of subscribers is
2 defined explicitly by creating and storing a named group that contains one or more
3 subscribers as group members.

1 7. (Original) A method as recited in Claim 5, wherein the group of subscribers is
2 defined implicitly such that the group comprises one or more subscribers in an object
3 tree of the directory repository who are subordinate in the tree to a container node of
4 the tree.

1 8. (Currently Amended) A method as recited in Claim 5, further comprising the steps of
2 subscribing one of the subscribers in the group to the telecommunications service by
3 creating and storing a relation of a subscriber object that programmatically represents
4 the subscriber to a service object that programmatically represents the
5 telecommunications service, and creating and storing one or more attribute values in
6 the relation, wherein the attribute values define the subscription.

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1 9. (Previously Presented) A method of automatically logging in a subscriber to all
2 telecommunications services subscribed to by the subscriber based on subscriber
3 information and service information that are stored in a directory repository, the
4 method comprising the computer-implemented steps of:
5 receiving a request from the subscriber to log in to the telecommunications services;
6 authenticating the subscriber by an authentication server;
7 generating a privilege token associated with the subscriber by an authorization
8 service, said privilege token including subscriber privilege information,
9 wherein said authorization service is separate from said authentication server;
10 determining whether the subscriber is allowed to automatically log into the
11 telecommunication services, said determination based on subscriber privilege
12 information in the privilege token associated with the subscriber;
13 if the subscriber is allowed to automatically log into the telecommunications services,
14 receiving, from the directory repository, a list of all services for which the
15 subscriber is then currently subscribed, and automatically logging the
16 subscriber into all services identified in the list.

1 10. (Original) A method as recited in Claim 9, wherein automatically logging the
2 subscriber into all services identified in the list comprises the steps of:
3 for each of the services identified in the list:
4 obtaining service information that describes the services from the directory
5 repository;
6 creating and storing a relation between a service object in the directory
7 repository that uniquely identifies and represents each of the services
8 and privileges of the subscriber, and a subscriber object that uniquely
9 represents the subscriber.

1 11. (Original) A method as recited in Claim 10, further comprising the steps of storing
2 the privilege token in a service selection gateway for use in subsequent authorization
3 processes relating to the subscriber.

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1 12. (Canceled)

1 13. (Currently Amended) A method of automatically subscribing a subscriber to a
2 telecommunications service based on ~~subscriber information and service information~~
3 ~~that are~~ stored in a directory repository, the method comprising the computer-
4 implemented steps of:
5 receiving a request from the subscriber to obtain a list of available
6 telecommunications services;
7 generating a list of only those telecommunications services for which the subscriber
8 has [[a]] privileges to subscribe to, based on privilege information and service
9 information that is stored in the directory repository and associated with the
10 subscriber, said privilege information associated with the subscriber
11 specifying what telecommunications services the subscriber has privileges to
12 subscribe to;
13 receiving a subscriber selection of one of the telecommunications services from the
14 generated list of telecommunications services;
15 verifying that the subscriber has privileges that permit the subscriber to subscribe to
16 the selected telecommunications service;
17 creating and storing updated subscription information in the directory repository;
18 generating a request to subscribe the subscriber to the selected telecommunications
19 service based on the updated subscription information.

1 14. (Previously Presented) A method as recited in Claim 13, wherein said privilege
2 information associated with the subscriber is comprised of a privilege token for the
3 subscriber that identifies a role of the subscriber, wherein the privileges of the
4 subscriber to subscribe to a telecommunications service is determined by the role in
5 the privilege token for the subscriber.

1 15. (Currently Amended) A method as recited in Claim 13, wherein generating [[a]] the
2 list of only those telecommunications services for which the subscriber has [[a]]

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3 privileges to subscribe to includes the step of generating and providing to the
4 subscriber a custom display page that identifies only those telecommunications
5 services for which the subscriber has [[a]] privileges to subscribe to.

- 1 16. (Previously Presented) A computer-readable medium carrying one or more sequences
2 of instructions for modifying a subscription of a subscriber to one or more
3 telecommunications services based on subscriber information and service information
4 that are stored in a directory repository, which instructions, when executed by one or
5 more processors, cause the one or more processors to carry out the steps of:
6 determining whether the subscriber is currently logged in, and if the subscriber is not
7 currently logged in, directing the subscriber to log in through an
8 authentication server and generating, by an authorization service, a privilege
9 token associated with the authenticated subscriber that includes subscriber
10 privilege information, wherein said authorization service is separate from said
11 authentication server;
12 receiving a modification request to modify the subscription of the subscriber to the
13 one or more telecommunications services;
14 determining, based on subscriber privilege information in the privilege token
15 associated with the subscriber generated by the authorization service, whether
16 the subscriber has privileges sufficient to carry out the requested modification;
17 if the subscriber is determined to have sufficient privileges, the one or more
18 sequences of instructions which, when executed, further cause the one or more
19 processors to carry out the steps of:
20 receiving, from the directory repository, first subscriber information and first
21 service information representing only such services for which the
22 subscriber is then currently subscribed;
23 modifying the first subscriber information and first service information to
24 reflect the modification;
25 sending the modified information to the directory repository, resulting in
26 creating and storing, in the directory repository, second service
27 information that reflects the modification;

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28 generating an engagement request to engage the telecommunications service
29 for the subscriber in order to fulfill the modification request.

1 17. (Previously Presented) An apparatus for modifying a subscription of a subscriber to
2 one or more telecommunications services based on subscriber information and service
3 information that are stored in a directory repository, comprising:
4 means for determining whether the subscriber is currently logged in, and if the
5 subscriber is not currently logged in, means for directing the subscriber to log
6 in through an authentication server and means for generating a privilege token
7 associated with the authenticated subscriber by an authorization service, said
8 privilege token including subscriber privilege information, wherein said
9 authorization service is separate from said authentication server;
10 means for receiving a modification request to modify the subscription of the
11 subscriber to the one or more telecommunications services;
12 means for determining, based on subscriber privilege information in the privilege
13 token associated with the subscriber generated by the authorization service,
14 whether the subscriber has privileges sufficient to carry out the requested
15 modification;
16 means for receiving, from the directory repository, first subscriber information and
17 first service information representing only such services for which the
18 subscriber is then currently subscribed;
19 means for modifying the first subscriber information and first service information to
20 reflect the modification;
21 means for sending the modified information to the directory repository, resulting in
22 creating and storing, in the directory repository, second service information
23 that reflects the modification;
24 means for generating an engagement request to engage the telecommunications
25 service for the subscriber in order to fulfill the modification request.

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1 18. (Previously Presented) An apparatus for modifying a subscription of a subscriber to
2 one or more telecommunications services based on subscriber information and service
3 information that are stored in a directory repository, comprising:
4 a network interface that is coupled to a data network that includes the directory
5 repository for receiving information therefrom;
6 a processor;
7 one or more stored sequences of instructions which, when executed by the processor,
8 cause the processor to carry out the steps of:
9 determining whether the subscriber is currently logged in, and if the
10 subscriber is not currently logged in, directing the subscriber to log in
11 through an authentication server and generating, by an authorization
12 service, a privilege token associated with the authenticated subscriber
13 that includes subscriber privilege information, wherein said
14 authorization service is separate from said authentication server;
15 receiving a modification request to modify the subscription of the subscriber
16 to the one or more telecommunications services;
17 determining, based on subscriber privilege information in the privilege token
18 associated with the subscriber that is generated by the authorization
19 service, whether the subscriber has privileges sufficient to carry out
20 the requested modification;
21 if the subscriber is determined to have sufficient privileges, the one or more
22 sequences of instructions which, when executed, further cause the
23 processor to:
24 receiving, from the directory repository, first subscriber information
25 and first service information representing only such services
26 for which the subscriber is then currently subscribed;
27 modifying the first subscriber information and first service information
28 to reflect the modification;

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29 sending the modified information to the directory repository, resulting
30 in creating and storing, in the directory repository, second
31 service information that reflects the modification;
32 generating an engagement request to engage the telecommunications
33 service for the subscriber in order to fulfill the modification
34 request.

1 19. (Currently Amended) A method of modifying a subscription of a subscriber to a
2 telecommunications service based on information stored in a directory repository, the
3 method comprising the computer-implemented steps of:
4 receiving a request to identify one or more services to which [[a]] the subscriber is
5 subscribed, based on a prior request to modify the subscription of the
6 subscriber to the telecommunications service;
7 generating a list of the one or more services to which the subscriber is currently
8 subscribed, based on group membership of the subscriber, one or more roles
9 occupied by the subscriber, and authorization information associated with the
10 subscriber that is stored in the directory repository, wherein said one or more
11 roles are mapped to one or more privileges that specify which
12 telecommunications services a subscriber having that role can subscribe to;
13 generating individual service information for each of the one or more services in the
14 list, based on subscriber information and service information that is stored in
15 the directory repository, for use in automatically subscribing the subscriber to
16 a service that is represented by the individual service information.

1 20. (Currently Amended) A computer-readable medium carrying one or more sequences
2 of instructions for modifying a subscription of a subscriber to a telecommunications
3 service based on ~~subscriber information and service information that are~~ stored in a
4 directory repository, which instructions, when executed by one or more processors,
5 cause the one or more processors to carry out the steps of:

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6 receiving a request to identify one or more services to which [[a]] the subscriber is
7 subscribed, based on a prior request to modify the subscription of the
8 subscriber to the telecommunications service;
9 generating a list of the one or more services to which the subscriber is currently
10 subscribed, based on group membership of the subscriber, one or more roles
11 occupied by the subscriber, and authorization information associated with the
12 subscriber that is stored in the directory repository, wherein said one or more
13 roles are mapped to one or more privileges that specify which
14 telecommunications services a subscriber having that role can subscribe to;
15 generating individual service information for each of the one or more services in the
16 list, based on subscriber information and service information that is stored in
17 the directory repository, for use in automatically subscribing the subscriber to
18 a service that is represented by the individual service information.

- 1 21. (Currently Amended) An apparatus for modifying a subscription of a subscriber to a
2 telecommunications service based on ~~subscriber information and service information~~
3 ~~that are~~ stored in a directory repository, comprising:
4 means for receiving a request to identify one or more services to which [[a]] the
5 subscriber is subscribed, based on a prior request to modify the subscription of
6 the subscriber to the telecommunications service;
7 means for generating a list of the one or more services to which the subscriber is
8 currently subscribed, based on group membership of the subscriber, one or
9 more roles occupied by the subscriber, and authorization information
10 associated with the subscriber that is stored in the directory repository,
11 wherein said one or more roles are mapped to one or more privileges that
12 specify which telecommunications services a subscriber having that role can
13 subscribe to;
14 means for generating individual service information for each of the one or more
15 services in the list, based on subscriber information and service information
16 that is stored in the directory repository, for use in automatically subscribing

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17 the subscriber to a service that is represented by the individual service
18 information.

1 22. (Currently Amended) An apparatus for modifying a subscription of a subscriber to a
2 telecommunications service based on ~~subscriber information and service information~~
3 ~~that are~~ stored in a directory repository, comprising:
4 a directory-enabled service selection framework that is coupled to the directory
5 repository for receiving stored information therefrom;
6 a processor;
7 one or more stored sequences of instructions in the framework which, when executed
8 by the processor, cause the processor to carry out the steps of:
9 receiving a request to identify one or more services to which [[a]] the
10 subscriber is subscribed, based on a prior request to modify the
11 subscription of the subscriber to the telecommunications service;
12 generating a list of the one or more services to which the subscriber is
13 currently subscribed, based on group membership of the subscriber,
14 one or more roles occupied by the subscriber, and authorization
15 information associated with the subscriber that is stored in the
16 directory repository, wherein said one or more roles are mapped to one
17 or more privileges that specify which telecommunications services a
18 subscriber having that role can subscribe to;
19 generating individual service information for each of the one or more services
20 in the list, based on subscriber information and service information
21 that is stored in the directory repository, for use in automatically
22 subscribing the subscriber to a service that is represented by the
23 individual service information.

1 23. (New) An apparatus for modifying subscriptions of a group of subscribers to one or
2 more telecommunications services based on information stored in a directory
3 repository, comprising:

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4 a network interface that is coupled to a data network that includes the directory
5 repository for receiving information therefrom;
6 a processor; and
7 one or more stored sequences of instructions which, when executed by the processor,
8 cause:
9 receiving from an administrator of the group, a request to modify the
10 subscriptions of the group of subscribers to the one or more
11 telecommunications services;
12 determining, based on subscriber privilege information in a privilege token
13 that is associated with the administrator and is generated by an
14 authorization service, whether the administrator has privileges
15 sufficient to carry out the requested modification; and
16 if the administrator is determined to have sufficient privileges, then
17 performing the steps of:
18 receiving, from the directory repository, current subscriber information
19 and current service information representing then-current
20 services to which the group of subscribers are subscribed;
21 modifying the subscriber information and the service information to
22 reflect the modifications, resulting in creating and storing, in
23 the directory repository, updated service information that
24 reflects the modifications; and
25 generating one or more requests to subscribe a telecommunications
26 service to the group of subscribers to fulfill the request of the
27 administrator.

1 24. (New) An apparatus as recited in Claim 23, wherein the group of subscribers is
2 defined explicitly by creating and storing a named group that contains one or more
3 subscribers as group members.

1 25. (New) An apparatus as recited in Claim 23, wherein the group of subscribers is
2 defined implicitly such that the group comprises one or more subscribers in an object

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3 tree of the directory repository who are subordinate in the tree to a container node of
4 the tree.

1 26. (New) An apparatus as recited in Claim 23, wherein the one or more stored sequences
2 of instructions further comprise instructions which, when executed by the processor
3 cause subscribing one of the subscribers in the group to the telecommunications
4 service by creating and storing a relation of a subscriber object that programmatically
5 represents the subscriber to a service object that programmatically represents the
6 telecommunications service, and creating and storing one or more attribute values in
7 the relation, wherein the attribute values define the subscription.

1 27. (New) An apparatus for modifying subscriptions of a group of subscribers to one or
2 more telecommunications services based on information stored in a directory
3 repository, comprising:
4 means for receiving from an administrator of the group, a request to modify the
5 subscriptions of the group of subscribers to the one or more
6 telecommunications services;
7 means for determining, based on subscriber privilege information in a privilege token
8 that is associated with the administrator and is generated by an authorization
9 service, whether the administrator has privileges sufficient to carry out the
10 requested modification;
11 means for receiving, from the directory repository, current subscriber information and
12 current service information representing then-current services to which the
13 group of subscribers are subscribed;
14 means for modifying the subscriber information and the service information to reflect
15 the modifications, resulting in creating and storing, in the directory repository,
16 updated service information that reflects the modifications; and
17 means for generating one or more requests to subscribe a telecommunications service
18 to the group of subscribers to fulfill the request of the administrator.

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1 28. (New) An apparatus as recited in Claim 27, wherein the group of subscribers is
2 defined explicitly by creating and storing a named group that contains one or more
3 subscribers as group members.

1 29. (New) An apparatus as recited in Claim 27, wherein the group of subscribers is
2 defined implicitly such that the group comprises one or more subscribers in an object
3 tree of the directory repository who are subordinate in the tree to a container node of
4 the tree.

1 30. (New) An apparatus as recited in Claim 27, further comprising means for subscribing
2 one of the subscribers in the group to the service by creating and storing a relation of
3 a subscriber object that programmatically represents the subscriber to a service object
4 that programmatically represents the service, and means for creating and storing one
5 or more attribute values in the relation, wherein the attribute values define the
6 subscription.

1 31. (New) An apparatus for automatically logging in a subscriber to all
2 telecommunications services subscribed to by the subscriber based on subscriber
3 information and service information that are stored in a directory repository,
4 comprising:
5 a network interface that is coupled to a data network that includes the directory
6 repository for receiving information therefrom;
7 a processor; and
8 one or more stored sequences of instructions which, when executed by the processor,
9 cause:
10 receiving a request from the subscriber to log in to the telecommunications
11 services;
12 authenticating the subscriber by an authentication server;
13 generating a privilege token associated with the subscriber by an authorization
14 service, said privilege token including subscriber privilege

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15 information, wherein said authorization service is separate from said
16 authentication server;
17 determining whether the subscriber is allowed to automatically log into the
18 telecommunication services, said determination based on subscriber
19 privilege information in the privilege token associated with the
20 subscriber; and
21 if the subscriber is allowed to automatically log into the telecommunications
22 services, receiving, from the directory repository, a list of all services
23 for which the subscriber is then currently subscribed, and
24 automatically logging the subscriber into all services identified in the
25 list.

1 32. (New) An apparatus as recited in Claim 31, wherein the instructions that cause
2 automatically logging the subscriber into all services identified in the list further
3 comprise instructions which, when executed by the processor, cause for each of the
4 services identified in the list:
5 obtaining service information that describes the services from the directory
6 repository; and
7 creating and storing a relation between a service object in the directory repository that
8 uniquely identifies and represents each of the services and privileges of the
9 subscriber, and a subscriber object that uniquely represents the subscriber.

1 33. (New) An apparatus as recited in Claim 31, wherein the one or more stored sequences
2 of instructions further comprise instructions which, when executed by the processors,
3 cause storing the privilege token in a service selection gateway for use in subsequent
4 authorization processes relating to the subscriber.

1 34. (New) An apparatus for automatically logging in a subscriber to all
2 telecommunications services subscribed to by the subscriber based on subscriber
3 information and service information that are stored in a directory repository,
4 comprising:

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5 means for receiving a request from the subscriber to log in to the telecommunications
6 services;
7 means for authenticating the subscriber by an authentication server;
8 means for generating a privilege token associated with the subscriber by an
9 authorization service, said privilege token including subscriber privilege
10 information, wherein said authorization service is separate from said
11 authentication server;
12 means for determining whether the subscriber is allowed to automatically log into the
13 telecommunication services, said determination based on subscriber privilege
14 information in the privilege token associated with the subscriber; and
15 means for receiving, from the directory repository, a list of all services for which the
16 subscriber is then currently subscribed when the subscriber is allowed to
17 automatically log into the telecommunications services, and means for
18 automatically logging the subscriber into all services identified in the list.

1 35. (New) An apparatus as recited in Claim 34, wherein the means for automatically
2 logging the subscriber into all services identified in the list comprises:
3 means for obtaining service information that describes the services from the directory
4 repository for each of the services identified in the list; and
5 means for creating and storing a relation between a service object in the directory
6 repository that uniquely identifies and represents each of the services and
7 privileges of the subscriber, and a subscriber object that uniquely represents
8 the subscriber.

1 36. (New) An apparatus as recited in Claim 34, further comprising means for storing the
2 privilege token in a service selection gateway for use in subsequent authorization
3 processes relating to the subscriber.

1 37. (New) An apparatus for automatically subscribing a subscriber to a
2 telecommunications service based on information stored in a directory repository,
3 comprising:

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4 a network interface that is coupled to a data network that includes the directory
5 repository for receiving information therefrom;
6 a processor; and
7 one or more stored sequences of instructions which, when executed by the processor,
8 cause:
9 receiving a request from the subscriber to obtain a list of available
10 telecommunications services;
11 generating a list of only those telecommunications services for which the
12 subscriber has privileges to subscribe to, based on privilege
13 information and service information that is stored in the directory
14 repository and is associated with the subscriber, said privilege
15 information associated with the subscriber specifying what
16 telecommunications services the subscriber has privileges to subscribe
17 to;
18 receiving a subscriber selection of one of the telecommunications services
19 from the generated list of telecommunications services;
20 verifying that the subscriber has privileges that permit the subscriber to
21 subscribe to the selected telecommunications service;
22 creating and storing updated subscription information in the directory
23 repository; and
24 generating a request to subscribe the subscriber to the selected
25 telecommunications service based on the updated subscription
26 information.

1 38. (New) An apparatus as recited in Claim 37, wherein said privilege information
2 associated with the subscriber comprises a privilege token for the subscriber that
3 identifies a role of the subscriber, wherein the privileges of the subscriber to subscribe
4 to a telecommunications service is determined by the role in the privilege token for
5 the subscriber.

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1 39. (New) An apparatus as recited in Claim 37, wherein the instructions that cause
2 generating the list of only those telecommunications services for which the subscriber
3 has privileges to subscribe to include instructions which, when executed by the
4 processor, cause generating and providing to the subscriber a custom display page
5 that identifies only those telecommunications services for which the subscriber has
6 privileges to subscribe to.

1 40. (New) An apparatus for automatically subscribing a subscriber to a
2 telecommunications service based on information stored in a directory repository,
3 comprising:
4 means for receiving a request from the subscriber to obtain a list of available
5 telecommunications services;
6 means for generating a list of only those telecommunications services for which the
7 subscriber has privileges to subscribe to, based on privilege information and
8 service information that is stored in the directory repository and is associated
9 with the subscriber, said privilege information associated with the subscriber
10 specifying what telecommunications services the subscriber has privileges to
11 subscribe to;
12 means for receiving a subscriber selection of one of the telecommunications services
13 from the generated list of telecommunications services;
14 means for verifying that the subscriber has privileges that permit the subscriber to
15 subscribe to the selected telecommunications service;
16 means for creating and storing updated subscription information in the directory
17 repository; and
18 means for generating a request to subscribe the subscriber to the selected
19 telecommunications service based on the updated subscription information.

1 41. (New) An apparatus as recited in Claim 40, wherein said privilege information
2 associated with the subscriber comprises a privilege token for the subscriber that
3 identifies a role of the subscriber, wherein the privileges of the subscriber to subscribe

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4 to a telecommunications service is determined by the role in the privilege token for
5 the subscriber.

1 42. (New) An apparatus as recited in Claim 40, wherein the means for generating the list
2 of only those telecommunications services for which the subscriber has privileges to
3 subscribe to includes means for generating and providing to the subscriber a custom
4 display page that identifies only those telecommunications services for which the
5 subscriber has privileges to subscribe to.

1 43. (New) An apparatus as recited in Claim 17, wherein the means for generating the
2 privilege token by the authorization service comprise:
3 means for receiving a user name associated with the subscriber and mapping the user
4 name to a distinguished name in the directory repository; and
5 means for creating and storing as subscriber privilege information in the privilege
6 token one or more roles occupied by the subscriber based on role information
7 that is stored in the directory repository, said stored role information including
8 mapping information that maps a role to one or more privileges that specify
9 which telecommunications services a subscriber having that role can subscribe
10 to.

1 44. (New) An apparatus as recited in Claim 17, wherein the means for determining
2 whether the subscriber is currently logged in comprise means for determining
3 whether a host object that uniquely identifies the subscriber exists, wherein the
4 privilege token associated with the subscriber is stored with the host object that
5 uniquely identifies the subscriber.

1 45. (New) An apparatus as recited in Claim 17, wherein the means for generating the
2 engagement request comprise means for subscribing the subscriber to the service by
3 creating and storing a relation of a subscriber object that programmatically represents
4 the subscriber to a service object that programmatically represents the service, and

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5 creating and storing one or more attribute values in the relation, wherein the attribute
6 values define the subscription.

1 46. (New) An apparatus as recited in Claim 18, wherein the instructions that cause
2 generating the privilege token by the authorization service comprise:
3 instructions which, when executed by the processor, cause receiving a user name
4 associated with the subscriber and mapping the user name to a distinguished
5 name in the directory repository; and
6 instructions which, when executed by the processor, cause creating and storing as
7 subscriber privilege information in the privilege token one or more roles
8 occupied by the subscriber based on role information that is stored in the
9 directory repository, said stored role information including mapping
10 information that maps a role to one or more privileges that specify which
11 telecommunications services a subscriber having that role can subscribe to.

1 47. (New) An apparatus as recited in Claim 18, wherein the instructions that cause
2 determining whether the subscriber is currently logged in comprise instructions
3 which, when executed by the processor, cause determining whether a host object that
4 uniquely identifies the subscriber exists, wherein the privilege token associated with
5 the subscriber is stored with the host object that uniquely identifies the subscriber.

1 48. (New) An apparatus as recited in Claim 18, wherein the instructions that cause
2 generating an engagement request comprise instructions which, when executed by the
3 processor, cause subscribing the subscriber to the service by creating and storing a
4 relation of a subscriber object that programmatically represents the subscriber to a
5 service object that programmatically represents the service, and creating and storing
6 one or more attribute values in the relation, wherein the attribute values define the
7 subscription.